

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE <div style="text-align: center;">J</div>		PAGE OF PAGES <div style="display: flex; justify-content: space-between;"><div>1</div><div>2</div></div>	
2. AMENDMENT/MODIFICATION NO. 0001		3. EFFECTIVE DATE 20-Sep-2004		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO.(If applicable)	
6. ISSUED BY U.S. ARMY ENGINEER DISTRICT, AK CEPOA CT (W911KB) P. O. BOX 6898 ELMENDORF AFB AK 99506-6898		CODE W911KB		7. ADMINISTERED BY (If other than item 6) <div style="text-align: center; font-weight: bold;">See Item 6</div>			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				X		9A. AMENDMENT OF SOLICITATION NO. W911KB-04-R-0008	
				X		9B. DATED (SEE ITEM 11) 01-Sep-2004	
						10A. MOD. OF CONTRACT/ORDER NO.	
						10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>0</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) a. Amendment 0001 is being issued to add a paragraph to Section G, Delete and replace Sections H, L and M. b. The date for receipt of offers remains unchanged at 12OCT04 at 2:00 PM. c. Point of contact for this amendment is Sharon A. Skelton at (907) 753-2525. d. All other terms and conditions remain unchanged.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				TEL: _____ EMAIL: _____			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 20-Sep-2004	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. Changes to subject request for proposal are amended as follows:

(See revision marks to show changes)

A. SECTION G – Added Paragraph 14 to page 44. Remove and replace page 44.

B. SECTION H - Changed as follows:

Paragraph 2.e.2 was deleted and replaced with revised Para 2.e.2. Paragraph 5 (Operation & Maintenance Manuals) is deleted and replaced with revised Paragraph 5.
Section H is deleted and replaced in its entirety.

C. SECTION L - Is deleted and replaced in its entirety.

D. SECTION M - Is deleted and replaced in its entirety.

2.. The following paragraphs of the Technical Specification Sections are changed as follows:

(See Technical Specification Section – Paragraph Change Page)

a. Sub-paragraph 1.8.b of paragraph 1.8 WARRANTY, of Technical Specification Sections 16710, 16730, 16731, 16755, 16756, 16770, 16771, 16781 16786 and 16788

b. Sub-paragraph 3.2.2.a. of paragraph 3.2.2 Rough-In, of Technical Specification Sections 16710, 16730, 16731, 16755, 16756, 16770, 16771, 16781, 16788

End of Summary of Changes.

HEALTH AND SAFETY STANDARDS: The systems and equipment designed under this contract shall comply with the Occupational Safety and Health Act (OSHA), Code of Federal Regulations, Title 29, Chapter XVII, Parts 1910 and 1926. Any problems in incorporating these standards due to conflicts with other technical criteria will be submitted to the Contracting Officer for resolution.

SEQUENCE OF DESIGN:

(a) After contract award, the Contractor shall initiate design, comply with all design submission requirements as covered under these specifications, and obtain Government review of each submission. No installation may be started until the Government has reviewed the Final Design submission and determined it satisfactory for purposes of beginning installation. The Contracting Officer will notify the Contractor when the design is cleared for installation. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the Contracting Officer, the initial submission failed to meet the minimum quality requirements as set forth in the contract.

(b) If the Government allows the Contractor to proceed with limited installation pending minor revisions to the reviewed Final Design Submission, no payment will be made for any in-place installation related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN:

(a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and any other services furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiency in Contractor provided designs, drawings, specifications, and other services.

(b) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract, or of any cause or action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of the services described herein.

(c) The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law.

14. The government intends to make award on or about 5 January 2005, subject to availability of funds.

END OF SECTION G

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SECTION H

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12	OPERATIONS & MAINTENANCE TRAINING
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SECTION H

SPECIAL CONTRACT REQUIREMENTS

1. SPECIAL ITEMS

a. REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ALASKA ADMINISTRATIVE CODE (AAC)

12 AAC 32	Electrical Administrators
12 AAC 32.195	Scope of An Electrical Administrator License in the Inside Communications
12 AAC 32.165	Scope of An Electrical Administrator License in the Unlimited Commercial Wiring Category
12 AAC 32.075	Scope of An Electrical Administrator License in the Unlimited Line work Category

b. ACCIDENT PREVENTION PLAN: The Contractor shall obtain the Contracting Officer's approval of the Accident Prevention Plan required by the latest version of the U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1 prior to start of any work at the project site. This manual can be viewed at <http://www.usace.army.mil/inet/usace-docs/eng-manuals/em385-1-1/toc.htm>. Alternatively, the manual can be ordered from the Superintendent of Documents, Government Printing Office, Washington D.C., phone 202-512-1800, Fax 202-512-2250. The Contractor shall participate in weekly and monthly safety meetings led by Dick Pacific/Ghemm JV, prime Contractor for the current construction contract.

c. FIRE SAFETY: The Contractor shall obtain a permit for any welding or open flame work. Permit shall be obtained from the Fort Wainwright Fire Prevention Office (907) 353-9166 or from the Fort Wainwright Fire Department Dispatch Office at (907) 353-7470.

d. COMPLIANCE WITH ALASKA STATE LABOR LAWS ON OCCUPATIONAL LICENSING: The Contractor shall comply with the current provisions of Alaska Statutes AS Title 08 and Alaska Administrative Code 12 AAC 32 and 12 AAC 39 requiring licensed electrical and mechanical administrators to supervise and be responsible for the performance of all regulated categories of electrical work performed on-site as part of this contract. The following is a partial list of areas covered by the Alaska State Regulations:

(1) Inside Communications 12 AAC 32.195.

(2) Commercial Wiring 12 AAC 32.165.

The Contractor shall also be required to comply with State of Alaska requirements for occupational licensing of electrical journeymen and apprentice craftsmen performing any work on-site as part of this contract. The ratio of individuals holding trainee certificates may not be more than two electrician trainees for every certified electrical journeyman as applicable on a job site, or two power linemen trainees for every certified power lineman on the job site. The Contractor shall be prepared to demonstrate on demand, the licensing of the Contractor's or subcontractors' employees engaged in the work.

e. **WORK CLEARANCE AND UTILITY OUTAGES:** The Contractor shall submit, in writing, a request for a utility outage to the Distribution Foreman (by FAX @ 907-353-6159 or hand delivered to Building 3022) with as much lead time as possible, but not less than five (5) working days prior to the requested utility outage date. All utility outage requests shall be coordinated 30 days in advance with Dick Pacific/GHEMM, JV if the outage will affect any utility service to the new Bassett Hospital facility or the construction site. The Contractor shall be responsible for verification of facsimile transmission to the Distribution Foreman by calling 907-353-7139. A copy of the latest version of the request form can be obtained from the Distribution Foreman. All outages are to be scheduled to occur between 0800 and 1500 hours Tuesdays through Thursdays, but in no case shall the duration of the outage exceed four (4) hours. The Contractor shall identify utilities affected (water, sewer, steam, condensate, electricity), the facilities affected, the exact locations, the duration of the outage, and a brief explanation of the work to be performed. The Contractor may request utility outages outside of the normal accepted time frames and duration's listed above; however, the acceptance of the request will be at the discretion of the Director of Public Works. At the discretion of the Director of Public Works, and when deemed necessary for safety, efficiency, and mission impact, the Director of Public Works may direct the outage to occur during a specific day, or time of day, to minimize the impact to the affected buildings.

(1) **Telephone and Cable Outages:** For commercial telephone and cable outages, the Contractor shall make those requests directly to the provider. No excavation shall be allowed until the provider has located and marked the utility line.

(2). **Notification and Posting of Outage Notices:** Notification and posting of scheduled outage notices will be conducted as follows: For Contractor initiated outage requests, the Contractor is responsible for posting outage notices on all affected buildings a minimum of 24 hours before the outage. The Contractor is responsible for posting notices at all building entrances and by notifying the designated building manager either in person or telephonically. The DPW customer service office will provide the DPW Project Manager and the Contractor a listing of the names and phone numbers of the building managers for the affected buildings. If the work cannot be completed within the outage time requested, and another outage is necessary, a new request shall be submitted and approval obtained in advance for the additional time required. When the work cannot be completed within the outage time requested and the DPW shop personnel are required to stay beyond their normal duty day, the Contractor will be held responsible for all overtime costs associated with the outage. Valve operations on active utilities will be performed by post personnel.

f. **DISPOSITION OF MATERIALS:** Any combustible and noncombustible waste material shall be disposed of in the Fort Wainwright Landfill. No burning of materials will be permitted. The landfill will be open by appointment only during the following hours (excluding Federal holidays): Monday - Thursday 0800 to 1600 hours and Friday 0800 to 1500 hours subject to the conditions listed below: A landfill Authorization Card will be required for each Contractor. The Contractor shall obtain the Authorization Cards from the Fort Wainwright Environmental Office, Building 3023 phone 353-6249. Load sheets will be required for each load at the landfill gate per current practice. Questions

concerning disposal of solid waste at the Fort Wainwright Landfill can be addressed to the Fort Wainwright Environmental Office at 353-6249.

(1) Waste Materials and Debris:

- (a) Access must be coordinated at least one day in advance with DPW Grounds Maintenance Shop at 353-7192.
- (b) Contents of the load must not include mixed garbage such as food containers or other household type refuse. Mixed loads will be refused.

(2) Prohibitions and Special Restrictions:

- (a) Scavenging and Salvaging is prohibited.
- (b) Disposal of hazardous wastes, as defined by 40 CFR part 261 is prohibited. Ensure waste meeting this definition is disposed of in accordance with 40 CFR Part 262, Standards Applicable to Generators of Hazardous Waste.
- (c) Disposal of raw sewage, liquids, radioactive material, explosives, oil, solvents, strong acids, untreated sewage sludge, septage, untreated pathogenic, and other waste defined under 18 AAC 60.990 (28) is prohibited at this facility.
- (d) Disposal of lead-acid vehicle batteries is prohibited.
- (e) Disposal of polluted soil as defined by 18 AAC 60.025 & 18 AAC 330 is prohibited.
- (f) Disposal of trash other than excess materials, packaging, etc. is prohibited.
- (g) Drums must be empty and cleaned of fluids prior to crushing. All drums must be crushed and flattened prior to disposal.
- (h) Fort Wainwright does not accept Mixed Solid Waste (MSW).

(3) The Contractor shall provide the necessary safeguards for the prevention of POL spills, containment and cleanup, and for dust suppression. All efforts and safeguards employed shall be in accordance with this section, paragraph 7, Environmental Protection.

g. **USE OF INSTALLED FEATURES:** The Contractor shall not use any installed feature of this project for its own benefit except as specified herein. The Contractor shall not use any part of the existing building for offices or material storage unless approved in writing by the contracting Officer.

h. **RECORD KEEPING:** During the life of this contract meetings may be requested by the Government, prime Contractor, a subcontractor, or suppliers. The Prime Contractor will be responsible for preparing the minutes of all such meetings. A written draft of the minutes shall be submitted within two working days after the meeting to the Resident Engineer for review. Upon agreement on the text, the Contractor shall transmit the minutes of the meeting to the Resident Engineer by serial letter. This document will become the official record of the meeting. The minutes shall include as a minimum the names of attendees, firm(s) represented, date and place of meeting and subjects discussed.

i. **CONTRACTOR'S REQUEST FOR INFORMATION.** When the work details are not understood following a thorough perusal of the contract drawings and specifications, the Contractor shall use a serial letter to request additional information from the Contracting Officer. Based on the Contractor's understanding and first hand knowledge of the contract documents, the Contractor shall recommend solutions to the issue based on its experience and first hand knowledge of the contract documents. The Contractor shall recognize that a project of this nature may involve many circumstances, which will require clarification and interpretation by the Contracting Officer. The administrative cost of identifying and processing requests for information shall therefore be anticipated and shall not be considered additional cost to the contract. This procedure is not intended to include those types of clarifications, which can and shall be addressed during the shop drawing submittal process.

j. **TESTS.** The Contractor shall provide testing, except where specifically noted to be performed by the Government, in accordance with Section H, Paragraph 10, **CONTRACTOR QUALITY CONTROL**.

k. **WARRANTY.** The contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract. The warranty shall apply to both the individual components and entire integrated system.

l. **PARTNERING.** The Communication Prime Contractor and all subcontractors will be required to participate in Bassett Hospital partnering sessions between the prime construction contractor, Dick/Pacific GHEMM, JV (and its subcontractors) and Government representatives. The Contractor shall have representation of key project personnel at the weekly project status meetings as well as monthly and quarterly partnering meetings. Quarterly partnering meetings are held during the months of January, April, July, and October. All partnering meetings are conducted onsite or at a conference center location in the Fairbanks area.

m. **OPERATION AND MAINTENANCE (O&M) MANUALS.** Operation and Maintenance Manuals shall be provided in accordance with Section H, Paragraph 5, entitled **OPERATION & MAINTENANCE MANUALS** and all its requirements. Submit quantities and items as required in Section H, Paragraph 11, entitled **SUBMITTAL PROCEDURES** to the Contracting Officer. Failure to submit manuals by the required date will be considered cause to withhold any payments due the Contractor. Construction, arrangement and content of these O&M Manuals shall be in accordance with Section H, Paragraph 5. Approval of manuals shall be obtained prior to scheduling operating tests and field training courses.

n. **VIDEO RECORDING OF TESTS AND O&M TRAINING.** The Contractor shall video record tests and operation and maintenance training sessions required in the technical specifications for mechanical and electrical features. Video recordings shall be produced in CD-ROM/DVD format and of professional quality. As an alternative: Manufacturer's standard pre-prepared training CD-ROM/DVD(s) may be submitted in lieu of the on-site video recording of tests and maintenance training. The manufacturers' standard training must contain all the information for the specific systems and configurations provided under this contract. The content of all training media must be approved by the CO. Approval of applicable O & M manuals shall be obtained and manuals provided on site at least 5 days prior to tests and training as specified. Each system or piece of equipment shall be covered in a single CD-ROM/DVD or set of CD-ROM/DVD(s) which shall be correlated with the approved O & M manuals. Videos shall be categorized and indexed by equipment and item of repair, with a typed or printed label showing the project, equipment or system and contract number; this same information shall be provided as an introduction on each video. One copy of the video recorded material shall be submitted to the Contracting Officer, for review and approval, within ten (10) days after completion of the video recorded training session. Coverage shall include, as applicable:

(1) Testing, trouble -shooting, and repair.

(2) Demonstration of common maintenance items, i.e., system tests (efficiency and operability), cleaning, adjustment, replacement of high failure items, scheduled maintenance, tear down and repair of specific items, etc.

(3) Resetting of systems after activation. Trouble -shooting, actual maintenance and repair of specific components, etc.

How to verify system performance and operating parameters (i.e., frequency bandwidth, sound pressure levels, resolution, etc.)

o. ACCESS: The Contractor will be provided access to rooms and areas no earlier than shown in the following table. Room numbers are for clarity only - they shall not be used for identification because the room numbers may change during construction. The number of days indicated in the column titled, "Calendar Days," is the number of days prior to "beneficial occupancy date" of the Bassett Army Hospital construction contract held by Dick Pacific/Ghemm, JV, in which the Communications Contractor may expect access to the areas indicated.

Room No. / Site	Room Name	Calendar Days Prior to 1 Dec 05 BOD
022-01	Communications Vault	180
024-24	Communications Shaft	180
103-03	Emergency Reception	180
117-23	Communications Room	180
118-16	Communications Room	180
124-10	Communications Shaft	180
125-05	Reception/Security	180
129-09	Communications Room	180
141-10	Communications Room	180
134-02	Communications Room	180
217-29	Communications Room	180
219-04	Communications Room	180
224-06	Communications Shaft	180
229-07	Communications Room	180
316-06	Telephone Switch Room	180
316-03	Computer Room	180
317-04	Communications Room	180
322-01	Security Office	180
324-10	Communications Shaft	180
424-01	Main Comm Equip Room	180
	All IBS Spaces & Mechanical Pods	180
	All Other Rooms	120

p. DUST CONTROL. This project is located immediately adjacent to an existing hospital facility, housing areas, and a school. The Contractor shall employ aggressive and continuous monitoring and

control measures and conduct its operations to prevent any dust hazard or nuisance, either on or off the project site.

q. **QUIET HOURS.** Fort Wainwright has established, and will be enforcing, a quiet period from 10 p.m. to 6 a.m. (22:00 to 06:00 hours military time). The Contractor and its agents shall avoid activities that would impact upon this period.

r. **ELECTRONIC AND HARD COPIES OF CORRESPONDENCE.** All correspondence to the Administrative Contracting Officer shall be provided concurrently in hard copy and electronic copy. Correspondence in this sense includes serial letters, requests for information (RFI's), catalogue cuts, calculations, submittals, and any other items that can be submitted on paper. The hard copy will be the Government's record copy. Electronic copies shall be submitted in Adobe Acrobat Portable Document Format (.pdf) except where noted otherwise.

s. **TOTAL BUILDING COMMISSIONING - TELECOMMUNICATIONS SYSTEMS.** The purpose of the Telecommunications Systems' Commissioning process is to ensure proper coordination, monitoring, recording and documenting of all individual telecommunication systems. This includes verification that their associated submittals, inspection, testing, O&M manuals, records, warranty provisions, spares provision, operator and maintainer training, etc. is accomplished/provided as required throughout these Contract Specifications. Additionally, Commissioning requires the Contractor to identify, plan, implement and record any additional performance testing and other requirements not covered in the Specifications which, nevertheless, are required to demonstrate to the Contractor and the Government that all necessary performance interoperability of the telecommunications systems with each other, with other building systems (e.g. emergency power, fire alarm), and with other systems outside the facility/off-site (e.g. Post-wide LANs) are identified, tested, demonstrated, recorded, and documented.

(1) The Contractor's QC organization shall develop a commissioning plan (CP) which shall incorporate and coordinate the individual telecommunication systems' inspection, pre-testing, final functional performance testing, O&M manuals development and delivery, operator and maintainer training planning, provision of spares etc. plus any additional telecommunications interoperability testing requirements, and interoperability requirements with other systems outside the building/off-site.

(a) The Contractor QC organization shall liaise with Dick Pacific/GHEMM (DP/G), and thereby with the DP/G Commissioning Agent (CA), to coordinate and develop the CP in respect of interoperability with other building systems.

(b) The Contractor QC organization shall liaise through the Contracting Officer to coordinate and develop the CP in respect of interoperability with systems outside the facility/off-site.

(2) The Contractor shall coordinate, schedule, and supervise the final functional performance testing (FPT) process.

(3) The Contractor shall request written confirmation of system readiness for final functional performance testing from the appropriate Sub-Contractor. It is anticipated the Contractor shall complete Pre-Functional Performance Checks to ensure systems are ready. Once the Contractor is provided with confirmation for all related systems completion, the actual start date for final functional performance testing of systems will be confirmed.

(4) Training and Instruction. Training and instruction for Government personnel are a part of the commissioning process and essential for the proper operation of the building. The Contractor shall ensure the commissioning plan incorporates and coordinates all requirements in the specifications for training and instruction, and development of operation and maintenance manuals. Approved operations and maintenance manuals are to be available prior to formal training.

(5) Deficiencies. Any deficiencies noted at any stage during commissioning shall be addressed by the Contractors own QC organization or by the COE to the appropriate General Contractor (Telecommunications or DP/G) for remedy.

(6) The Contractor shall ensure any approved design changes, all test results, deficiencies/remedial effort, and any other relevant documentation, is provided to the Government as a complete record of the contract activity and of the end-state performance of the systems. This shall be provided in the form of a Commissioning Manual.

t. MERCURY. All materials and products incorporated by this contract shall contain no mercury.

2. COORDINATION

a. SUBMITTALS. Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with paragraph 11, Submittal Procedures.

SD-04 Drawings

Coordination drawings; G.

Drawings showing the location and layout of critical elements of the various trades as enumerated in paragraph 2d, COORDINATION DRAWINGS below. Approval shall be required prior to the beginning of any work.

b. FINISH ITEMS. The Contractor shall coordinate location with Dick Pacific/Ghemm (DP/G) and Corps of Engineers (COE) for items placed in or on finished surfaces that require ready access, such as the following examples: equipment mounted on counters, such as nurse call master stations, facility security operator work stations, and duress alarm switches; equipment surface mounted on doors, such as electromagnetic locks and door positions switches; equipment mounted in communications rooms, and antennas mounted on the roof mounting rail.

c. COORDINATION DRAWINGS. The Contractor shall be responsible for the coordination of all the work of all trades, subcontractors, and material suppliers. The Contractor shall, in advance of the work, prepare coordination drawings showing the location and layout of all electrical and communication systems which require coordination. The principal purpose of these drawings, which are to include plans, elevations, and sections as appropriate, is to provide a detailed plan for installing the required components, equipment, systems, etc., in such an organized manner as to assure interference-free and maintainable positioning within the spaces permitted. Drawings shall be of appropriate scale to satisfy the purpose, except floor plan drawings shall be 1:50 scale to match the construction drawings whenever possible. These drawings shall include appropriate views, plans, elevations, and sections as required, to show the rooms, or other space arrangements the Contractor proposes for all pieces of equipment and appurtenances thereto. Hard copy prints of drawings may be composite (with distinctive colors for the various trades) or may be separate but fully coordinated drawings. Electronic drawings, compatible with AutoCAD Version 2000, shall also be provided with

each hard copy print. Electronic files shall be provided on CD-ROM/DVD. Each drawing file shall have all trades included for the particular building area, each trade assigned to a unique "layer". Drawings for a given area of the project shall show the work of all trades involved in that particular area which will allow carefully planned work sequencing and proper trade coordination and assure the expeditious solutions of problems and the installation of service lines and equipment as contemplated by the contract drawings. In the event the Contractor, in coordinating the various installations and in planning the method of installation, finds a conflict in routing, location or elevation between existing elements such as utilities, structural or other construction items, the Contractor shall bring the conflict to the attention of the Contracting Officer immediately. Based on the Contractor's understanding and firsthand knowledge of the contract documents, the Contractor shall explain and document his proposed method of resolving any conflicts or problems identified. Installation of work will not proceed in any area prior to the completion of the coordination drawings submission to the Contracting Officer, and joint review and acceptance by the Contractor and all subcontractor trades involved in each particular area, nor in any area in which conflicts are disclosed by the coordination drawings and the identified conflicts have been corrected to the satisfaction of the Contracting Officer. The Contractor shall certify to the Contracting Officer that the joint review and acceptance of the coordination drawings by the Contractor and his subcontractors has been completed and that all conflicts have been resolved. The Government will not be responsible for any impacts for lack of coordination between systems or systems components, that were not resolved in the coordination process prior to installation by any trade. The Contractor shall submit three sets of all coordination drawings to the Contracting Officer for information at least 30 calendar days prior to the actual start of any work in the area illustrated by the drawings. Equipment rooms shown on the drawings are adequate size to accommodate equipment of the required capacities as available from several manufacturers. Equipment items installed shall be of such dimension and configuration to accommodate full access for operation, servicing and removal. The preparation of coordination drawings and the coordination effort required by this section shall be coordinated with the requirements of Section 13080, entitled Seismic Protection for Nonstructural Building Equipment and Systems located in the technical specifications of this contract.

d. COORDINATION AND CONTROL PROCESS. At least 30 days prior to the submittal of coordination drawings, the Contractor shall meet in conference with personnel from the Corps of Engineers, MEDDAC, and HFPO to discuss the process, procedures, contents, and scheduling requirements for the preparation of Coordination Drawings. This meeting shall be scheduled as a line item activity on the Network Analysis System to precede the first submittal of a coordination drawing. At the conclusion of the meeting, the process that is developed and agreed to will be submitted in Report format for Government Approval and will constitute the outline to be followed by the Contractor for the submittal of all future coordination drawings.

e. COORDINATION WITH OTHER CONTRACTORS.

- (1) The Communications Contractor is required to use close coordination of work with other contractors concurrently performing work at the site. Dick Pacific/Ghemm, JV (DPC/G), is the prime construction contractor responsible to the Government for the construction of Bassett Hospital. Work required by this Communications Contract will require extensive coordination with the ongoing Bassett Hospital contract. Scheduling and performance of work shall be coordinated in advance with DPC/G and their subcontractors so that work can continue without delays or interruptions. Participation in the on-site safety meetings, work coordination meetings, and partnering meetings conducted by DPC/G shall be required.
- (2) The Premises Distribution System (PDS) and the Facility Security System (FSS) must be completed by the Dick Pacific/Ghemm JV (DPC/G) beneficial occupancy date (BOD) specified

in Section H, para 1.o. Coordination with other government contracts will be required to include the installation of a new telephone switch in room 316-06. For work scheduling purposes, the contractor shall prioritize the following work to be completed first: a) main distribution frame installation in room 316-06, b) Frame installation in 9 communications rooms, c) Backbone cable and fiber installation and testing, and d) completion of PDS system. The government's contractor for the installation of the telephone switch will be on site in September 2005 to begin installation of the telephone switch in room 316-06.

All other systems under this contract must be installed, acceptance tested, and commissioned by 11 April 2006. Training for all systems (including the PDS and FSS) shall be performed between June 2006 and Sept 2006 as scheduled by the end user with advance notification provided to the Contractor as specified elsewhere. Additionally, the Contractor is responsible for coordinating with DPC/G and its subcontractors to accomplish joint commissioning of the FSS with the Building Fire Alarm System (At proposal due date DPC/G's planned commissioning date for the Building Fire Alarm System is 30 September 2005.) All work associated with the commissioning of the FSS shall be the responsibility of the Contractor.

3. METRIC MEASUREMENTS

a. REFERENCES. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 380 (1993) Practice for Use of the International System of Units (SI)

ASTM E 621 (1994) Practice for Use of Metric (SI) Units in Building Design and Construction

b. GENERAL. This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value (soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric) dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

c. USE OF MEASUREMENTS. Measurements shall be either in SI or I-P units as indicated, except for soft metric measurements or as otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

(1) Hard Metric. A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value, i.e., where an SI value is not an exact mathematical conversion of an I-P value, such as the use of 100 mm in lieu of 4 inches. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

(2) Soft Metric

(a) A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.

(b) A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8 inches)).

(3) Neutral. A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

d. COORDINATION. Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

e. RELATIONSHIP TO SUBMITTALS. Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM E 380 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

4. TESTING AND VALIDATION OF EQUIPMENT AND SYSTEMS -

a. SUBMITTALS. The following shall be submitted in accordance with Section H, paragraph 11, entitled SUBMITTAL PROCEDURES.

SD-01 Data

SD-07 Schedules

List of Tests; G: No later than 30 calendar days after award of the contract, the Contractor shall provide a complete list of all testing requirements for equipment and systems as specified in the technical provisions for review by the Contracting Officer. This list shall be maintained current during the Contract period utilizing data base software. Omission of test requirements from this listing shall

not excuse the Contractor from performance of the tests for Government acceptance of the system. The submittal shall identify each test as follows:

- Type of test.
- Item being tested.
- Specification reference and requirement.
- Other requirements and references.
- Location.
- Source of testing services and qualifications
- Equipment or system test.
- End item or component item.

SD-08 Statements

Test Procedures; G.

(1) The Contractor shall submit to the Contracting Officer for approval the test procedures to be used no later than sixty (60) calendar days prior to scheduled test date. The test procedures shall provide a step-by-step description of:

- Contract requirements.
- Code or manufacturer's requirements.
- Test methodology.
- Availability of testing equipment.
- Calibration of testing equipment versus standards.
- Documentation format.
- Expertise of personnel.

Preparatory Inspection; G.

(2) The Contractor CQC shall conduct a preparatory inspection prior to each test, see paragraph 10, Contractor Quality Control for requirements.

Deficiency Tracking System; G

(3) The Contractor shall submit for approval its proposed tracking system to identify and maintain monthly status of deficiencies noted during testing procedures. The system shall provide a current status by sort of equipment tests and system tests as well as a separate sort by these categories of all presently noted deficiencies during the testing period. A final report listing all deficiencies for each equipment and system test shall be provided upon successful completion of the required test.

SD-14 Samples

Testing Documentation Format; G

(4) The Contractor shall submit to the Contracting Officer for approval sample forms and/or formats for documentation of equipment and system test no later than sixty (60) calendar days prior to the scheduled test date. The format for each test shall provide for sufficient data to ensure complete validation of the test results.

Standard Forms or Certificates; G

(5) In the event that a feature of work is tested according to a particular code and that code contains or recommends an example reporting form or certificate, the code shall be referenced and the data included in the submittal to the Contracting Officer, and if approved, it shall be properly executed upon performance of test. These formats do not replace the test documentation required under paragraph 4j TEST RESULTS DOCUMENTATION unless waived in writing by the Contracting Officer.

b. RESUBMITTAL REQUIREMENTS.

(1) The Government shall require thirty (30) calendar days to review and approve submittal data under this section. A requirement by the Government for resubmittal of an item shall require the Contractor to reschedule the test to a date at least thirty (30) calendar days from the date of the resubmittal. The Contracting Officer shall have final decision as to classification of items into equipment or systems status.

(2) Additional requirements. Once testing of an item of equipment or system has begun, if the Contracting Officer determines that a procedure or reporting form does not go into enough detail, the Contractor shall be required to resubmit the data for approval at no increase in contract price.

c. GENERAL REQUIREMENTS. The Contractor shall perform tests to validate the quality control measures for performance of the contract work were adequate, and that the finish product conforms to the contract requirements. This section shall be used in conjunction with the contract requirements for a Contractor quality control system and other sections of the specifications, which require specific testing. The Contractor shall inspect and test all equipment and systems, including interrelationships, whether or not required elsewhere in the specifications.

d. SCHEDULING. Testing of major items of equipment and systems shall be included as components of the Contractor's scheduling system. Each component or test shall be identified by specific area, specification section, or interrelated system and equipment identification, and shall be assigned a time frame or target date for performance. The test components shall be activities in the network analysis system interrelated with other work activities. Updated information shall be provided in the same manner as required for the scheduling system.

e. ELEMENTS. In addition to the testing specifically required by the various sections the Contractor shall also perform the following, except duplication of tests or data will not be required.

(1) Industry Practice. Where a particular test procedure for equipment or systems is not specified in the contract documents, that feature of work shall be tested based on standard industry practice and as necessary to determine the satisfactory operation of the equipment or system.

(2) Code or Manufacturer Tests. If a feature of work is specified to be constructed to meet a certain code (NFPA, ANSI, etc.), and that code contains an operational test procedure or a recommended one, or the manufacturer recommends a particular operational test, the equipment or system shall be additionally tested according to that test procedure whether or not it is specifically specified in the specifications, unless waived in writing by the Contracting Officer. This does not include tests performed by laboratories to obtain labels such as UL, NEMA, etc., or to meet factory certification.

f. OTHER SPECIFIED TESTS. These testing requirements do not supersede specific testing requirements as outlined under the various sections of the specifications. Where testing procedures and

formats required under the specifications incorporate all of the requirements of this section, duplication of such data under these requirements will not be necessary.

g. **TESTING EXPERTISE.** The Contractor shall provide personnel with the necessary expertise to perform testing requirements. The Contractor shall obtain qualified technical personnel to inspect, check, adjust, calibrate, and operate the installed equipment or system personnel conducting testing shall be factory trained or certified for the specific model of system installed, and be completely knowledgeable regarding the system application design, installation, and operation for this project. This expertise shall be available to the Contractor Quality Control System Manager as necessary for performance of test procedures and subsequent evaluation. The Contracting Officer reserves the right to approve the system Contractor's choice of testing personnel, and, upon rejection of any testing personnel by the Contracting Officer at any time, the system contractor shall replace such testing personnel as soon as reasonably possible. Upon request, the system contractor shall provide the Contracting Officer the opportunity to interview and review the qualifications of each person proposed for testing work.

h. **RECORDS.** The Contractor shall maintain current and accurate records of all tests performed. These records shall be available for review by Government personnel.

i. **DEFICIENCIES.** The Contractor's deficiency tracking system shall be implemented under the Contracting Quality Control System. As deficiencies are corrected and after verification by the Contractor's Quality Control System Manager that the corrective measures are satisfactory, the Contractor shall update the test records to show this corrective action. The updating shall be accomplished by striking or lining out a deficiency in such a manner that it can still be read, with initials and date. The Contractor shall provide the updated test record to the Contracting Officer to indicate the status/progress of deficiency correction on a weekly basis. In addition the Contractor shall notify the Contracting Officer when all deficiencies for a particular item have been corrected and shall provide a final certified test record to the Contracting Officer within 10 calendar days of correcting all deficiencies for a particular test.

j. **TEST RESULTS DOCUMENTATION.** All test results shall be legibly recorded on the testing validation format as approved by the Contracting Officer. The test validation format shall provide for the following:

- Project title and contract number
- Applicable specification section and paragraphs. Submittal register number, if applicable.
- Network Analysis System (NAS) activity, if applicable.
- Interrelationship with other testing requirements.
- Test number. All tests are to be sequentially numbered for a particular test or discipline.
- Date and time of test.
- Location of project at which test was performed.
- Test results, numerical.
- Test results, pass/fail. Pass with qualifications (list)
- Corrective action if required; removal, repair, modification, etc.
- Name and signature of individuals performing test.
- Name and signature of Government Representative witnessing Test. (The signature of the Government Representative does not release the Contractor from meeting all contract requirements.)
- Additional specific equipment and system data specified.

The test record shall include as an attachment the approved test procedure. All test records shall be signed by the Contractor Quality Control System Manager and shall certify that the testing was performed in accordance with approved test procedures.

k. **SYSTEM TESTING.** The Contractor is responsible for conformance to the specifications for all construction. All Contractor furnished and installed equipment shall be thoroughly tested for compliance with the specifications and as necessary to demonstrate proper operation. Equipment testing shall include all operational features, safety features, mechanical and electrical limits, etc., and an inspection of finishes for scratches, dents, etc., as well as types of materials used and quality of installation.

(1) **Test Procedure Data.** The test procedure for equipment testing shall provide the following:

- Make and model number of equipment.
- Serial number and other nameplate data
- A listing of all operational features, safety features, and limits which are to be verified.
- Any variation to specified procedures.
- All test equipment shall be in current calibration and shall have a current calibration certification. (See Technical Specifications).

(2) **Pre-Testing Checks.** Contractor shall perform pre-testing checks and complete the associated checklists certifying that equipment and systems are ready for functional performance tests.

(3) **Acceptance Tests.** Contractor shall perform integrated systems acceptance tests. These tests shall demonstrate that the equipment and systems meet operational and functional requirements listed in the contract documents. This includes providing all modes of the sequences operation.

5. OPERATION & MAINTENANCE MANUALS

a. **SUMMARY.** Provide all operation and maintenance manuals for components and the entire integrated system/ systems.

b. **PAYMENT.** No separate payment will be made for the preparation and submittal of O&M Manuals, posted data or framed instructions. For payment purposes, preparation and submittal of O&M manuals shall be considered as a part of the price for the equipment and/or systems that is the subject of the O&M Manual, posted data and framed instructions.

c. **SUBMITTALS.** Contractor shall revise all submittals in accordance with government comments prior to final submittal. Government approval is required for submittals with a "G" designation. Submittals having no designation are for information only.

d. **QUALITY CONTROL, DOCUMENT PREPARATION.** Preparation of each O&M Manual shall be supervised by persons who are experienced in the operation and maintenance of equipment and systems described within the O&M Manual. A person skilled in technical writing shall write system literature.

e. **FORMAT.** Format will be consistent with O&M Manuals provided to other commercial customers (for example: hospitals).

f. CONTENT. Furnished Operation and Maintenance (O&M) data for each system shall include, but not be limited to, the information described below and in each technical Section of the Specifications.

- (1) O&M Manuals produced by the manufacturer for each system and each component item of equipment. These shall be original documents only, photocopies shall not be acceptable.
- (2) Addendums to the O&M Manuals to describe the specific System Application design for each installed system, including complete operating, maintenance and repair instructions information outlined below. Addendums shall complement the O&M Manuals from the manufacturer.
 - a. Complete description of the system application design for each system and major components, including performance and interface specifications.
 - b. Operating instructions.
 - c. Systems block diagrams and schematics.
 - d. Assembly and installation data.
 - e. Preventive maintenance procedures, trouble shooting and servicing information, including test equipment list.
 - f. Complete catalogued list of components and parts.
 - g. Recommended types and quantities of spare components to be kept on-site after the warranty period.
- (3) Software Manual
The software manuals shall describe the functions of all software and shall include all other information necessary to enable proper loading, setup, testing, and operation. The manual shall include the details specified in each technical Section.
- (4) Users instructions and operational guidelines.

g. VOLUME DESIGNATIONS. O&M Manuals shall all be prepared in volumes according to the telecommunications systems.

6. CLOSEOUT SUBMITTALS

a. SUBMITTALS. Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with paragraph 11, Submittal Procedures.

SD-02 Shop Drawings

As-Built Drawings; G

(1) Drawings showing final as-built conditions of the project. The final CADD as-built drawings shall consist of one set of electronic CADD drawing files in the specified format, one set of mylar drawings, 2 sets of blue-line prints of the mylars, and two sets of the approved working as-built drawings.

Warranty Documentation; G

(2) One set of the warranty documentation containing information relevant to the warranty of materials and equipment incorporated into the project, including the starting date of warranty.

Final Cleaning; G

(3) All areas of where work/installation occupied by said contractor shall be free of all work debris upon completion of the installation.

b. PROJECT RECORD DOCUMENTS.

(1) As-Built Drawings. This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings.

(a) Working As-Built and Final As-Built Drawings. The Contractor shall revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan. The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor.

(1) The location and dimensions of any changes within the building structure.

(2) Changes or modifications which result from the final inspection.

(3) Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

(b) Drawing Preparation. The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

(c) Computer Aided Design and Drafting (CADD) Drawings. Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The CADD drawings shall be provided in AutoCad Release 2000 in CD version. The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The

Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

(3) Within 20 days after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 7 days the Contractor shall revise the CADD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 10 days of completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of one set of electronic files on AutoCad Release 2000 CD disks, one set of mylars, two sets of full size prints and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this are the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

(4) The Contractor shall furnish a list for each system of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list for each system shall be furnished in conjunction with System Commissioning.

c. WARRANTY MANAGEMENT

(1) Warranty Management Plan. The Contractor shall develop a warranty management plan. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the performance of period of this contract shall be submitted to the Contracting Officer. Information contained in the warranty management plan shall include, but shall not be limited to, the following:

- (a) Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.
- (b) Listing and status of delivery of all Certificates of Warranty for extended warranty items.

(c) A list for each warranted system indicating:

- (1) Name of item.
- (2) Model and serial numbers.
- (3) Location where installed.
- (4) Name and phone numbers of manufacturers or suppliers.
- (5) Names, addresses and telephone numbers of sources of spare parts.
- (6) Warranties and terms of warranty. This shall include one-year overall warranty. Items which have extended warranties shall be indicated with separate warranty expiration dates.
- (7) Cross-reference to warranty certificates as applicable.
- (8) Starting point and duration of warranty period.
- (9) Summary of maintenance procedures required to continue the warranty in force.
- (10) Cross-reference to specific pertinent Operation and Maintenance manuals.
- (11) Organization, names and phone numbers of persons to call for warranty service.
- (12) Typical response time and repair time expected for various warranted equipment.

(2) Pre-Warranty Conference. Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established and reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of the company that is authorized to initiate and pursue warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the installed systems under this contract, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

(3) Contractor's Response to Warranty Service Requirements. Following oral or written notification by the Contracting Officer, the Contractor shall respond to warranty service requirements in accordance with the response times detailed in the technical specifications. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the warranty within the timeframes specified, the Government reserves the right to invoke the terms and conditions specified in the warranty clause included with this contract.

d. TESTING, ADJUSTING, AND COMMISSIONING. Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing, adjusting, and commissioning of communications systems shall be submitted to and approved by the Contracting Officer as specified in applicable technical specification sections and the Commissioning Plan developed by the Commissioning Agent (Refer to Section H, Paragraph 1.s.).

e. FINAL CLEANING. The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Debris shall be removed from indoor areas of work. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall

have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

7. ENVIRONMENT PROTECTION

The contractor shall comply to all Federal, State and EPA laws and regulations

8. TEMPORARY FACILITIES

a. GENERAL REQUIREMENTS.

(1) Identification of Employees. The Contractor shall be responsible for furnishing to each employee, and for requiring each employee engaged on the work to display, identification as approved and directed by the issuing office. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

(2) Employee Parking. Contractor employees shall park privately owned vehicles in the area designated on the contract drawings or as directed by the Contracting Officer. Parking shall not be permitted on the Hospital project site or adjacent areas without written permission of the Contracting Officer. Contractor employee parking shall not interfere with existing and established parking requirements of the military installation.

b. AVAILABILITY AND USE OF UTILITY SERVICES.

(1) Payment for Utility Services. The Government will make all reasonably required utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

<u>Utility</u>	<u>Maximum Amount</u>	<u>Cost</u>
Water	Reasonable	\$2.7114/kGAL
Electricity	Reasonable	\$0.1032/kWH
Sewage	Reasonable	\$4.2823/kGAL
Landfill Use	Reasonable	\$7.0731/CY
Steam	Reasonable	\$8.2490/kLB

(2) Meters and Temporary Connections. The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall provide and maintain necessary temporary connections, distribution lines, and meters required to measure the amount of each utility used for the purpose of determining charges. The Contractor shall notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that a utilities contract can be established.

(3) Final Meter Reading. Before completion of the work and final acceptance of the work by the Government, the Contractor shall notify the Contracting Officer, in writing, 5 working days

before termination is desired. The Government will take a final meter reading. The Contractor shall then remove all the temporary distribution lines, meters, and associated paraphernalia. The Contractor shall pay all outstanding utility bills before final acceptance of the work by the Government.

(4) Sanitation. The Contractor shall provide and maintain within the project site their own field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel. The permanent building toilet facilities installed by DickPacific/GHEMM shall not be used by any contractor or subcontractor personnel under this contract unless approval is received in writing from DickPacific/GHEMM.

(5) Telephones. The Contractor shall make arrangements and pay all costs for telephone facilities desired.

c. NOT USED.

d. CONTRACTOR'S TEMPORARY FACILITIES

(1) Administrative Field Offices. If the Contractor provides and maintains administrative field office facilities at Fort Wainwright, they must be located as designated on the drawings. Government office and warehouse facilities will not be available to the Contractor's personnel.

(2) Storage, Office Trailer, and Employee Parking Area. The Government will provide a fenced area as shown on contract drawing G1.02 to the Contractor for location of office trailers, staging and storage of materials, and employee parking.

(a) Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Upon Contractor's request, the Contracting Officer will designate another or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but will be within the military boundaries. A temporary 1.8 meter high chain link with plastic strip inserts, colored green (for visibility obstruction) shall be provided by the Contractor for supplemental storage areas. Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. Mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area at the end of each work day.

(b) Heated Warehouse Storage. The Contractor is responsible for the proper storage and handling of all materials requiring heated storage at his expense. There are no on-site or Government provided heated storage warehouses. Equipment and materials arriving to the project site that require heated storage shall be maintained at the required temperatures until time of installation. Materials shall not be stored in the Bassett Hospital building that are not installed within 2 work days upon arrival to the building.

(c) Appearance of Trailers. Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

(d) Maintenance of Storage Area. Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the field office staging area site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

e. SNOW PLOWING. The Contractor shall provide snow plowing for his project office(s), storage area, access roads, and employee parking as required to maintain safe access to these areas through the winter months.

f. SECURITY PROVISIONS. Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office.

g. PLANT COMMUNICATION. Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

h. CLEANUP. Construction debris, waste materials, packaging material, lunch debris and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

i. RESTORATION OF PROJECT OFFICE AND STORAGE AREAS. Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the existing fence shall be removed and will become the property of the Contractor. Upon completion of work, the areas shall be restored to the original or better condition. Roadways for access to the storage area shall also be removed. Gravel within the storage areas shall be removed and the areas restored to its original condition, including the placement of topsoil and seeding as necessary. The Contractor shall provide maintenance to seeded areas as necessary to re-establish the vegetation.

9. NOT USED

10. CONTRACTOR QUALITY CONTROL

a. REFERENCES. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

b. PAYMENT. Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Proposal Schedule.

c. **GENERAL REQUIREMENTS.** The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all design and construction operations, both onsite and offsite, and shall be keyed to the construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

d. **QUALITY CONTROL PLAN.** The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

(1) **Content of the CQC Plan.** The CQC Plan shall include, as a minimum, the following to cover all design and construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

(a) A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

(b) The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

(c) A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

(d) Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section H, Paragraph 11, , entitled, SUBMITTAL PROCEDURES.

(e) Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will require approval by the Contracting Officer.)

(f) Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

(g) Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

(h) Reporting procedures, including proposed reporting formats.

(i) A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

(2) Acceptance of Plan. Acceptance of the Contractor's plan is required prior to the start of performance of work. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

(3) Notification of Changes. After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

e. COORDINATION MEETING. After the Post-Award Conference, before start of work, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 30 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

f. QUALITY CONTROL ORGANIZATION.

(1) Personnel Requirements. The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

(2) CQC System Manager

(a) The CQC System Manager shall have a bachelors degree in Electrical or Electronics Engineering with at least 5 years total experience in the medical Telecommunications Systems field. Have extensive (minimum of 5 years) in the design, installation, operation, testing and troubleshooting of Comm systems, with special emphasis on those for medical facilities. The CQC System Manager shall have knowledge of the types of systems included in the Bassett Army Community Hospital project. The CQC System Manager shall have previous experience as a QA or QC field representative on Communication systems for at least three medical projects of similar size and complexity. At least one of these projects shall have been within the past three years. The CQC System Manager shall be well versed on the content and use of EIA/TIA Standards on Comm systems. Other technical degrees and training plus past commissioning and field experience will be considered but are considered secondary to the primary requirements above.

(b) This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. Period of absence may not exceed 2 weeks at any one time, and not more than 24 work days during a calendar year. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

(3) CQC Personnel. In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel whose primary responsibilities are to assist the CQC System Manager for the following areas: Premises Distribution System, EMS Recorder, Radio Page System, Nurse Call Systems, PA System, Sound Reinforcement System, TV system, Facility Security System, and RF Transponder System. . These individuals shall be employees of the prime Contractor; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility.

(4) Additional Requirements. In addition to the above experience and/or education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at the Associated General Contractors of Alaska offices in Anchorage and Fairbanks.

(5) Organizational Changes. The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

g. SUBMITTALS AND DELIVERABLES. Submittals, if needed, shall be made as specified in Section H, Paragraph 11, entitled, SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

h. CONTROL. Contractor Quality Control is the means by which the Contractor ensures that the systems installation, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

(1) Preparatory Phase. This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- (a) A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
 - (b) A review of the contract drawings.
 - (c) A check to assure that all materials and/or equipment have been tested, submitted, and approved.
 - (d) Review of provisions that have been made to provide required control inspection and testing.
 - (e) Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
 - (f) A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
 - (g) A review of the appropriate activity hazard analysis to assure safety requirements are met.
 - (h) Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
 - (i) A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
 - (j) Discussion of the initial control phase.
 - (k) The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.
- (2) Initial Phase. This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:
- (a) A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
 - (b) Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

(c) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.

(d) Resolve all differences.

(e) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

(f) The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

(g) The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

(3) Follow-up Phase. Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

(4) Additional Preparatory and Initial Phases. Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

i. TESTS. Testing Procedure. The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Testing includes operation and/or acceptance tests when specified. A list of tests to be performed shall be furnished as part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site, as appropriate. The Contractor shall perform the following activities and record and provide the following data:

(a) Verify that testing procedures comply with contract requirements.

(b) Verify that facilities and testing equipment are available and comply with testing standards.

(c) Check test instrument calibration data against certified standards.

(d) Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

(e) Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

j. COMPLETION INSPECTION

(1) Punch-Out Inspection. Near the end of the work, or any increment of the work established by a time stated in the Special Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by Section H, paragraph 10.k., entitled DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

(2) Pre-Final Inspection. The Government will perform the pre-final inspection to verify that the telecommunications systems are complete and ready for use. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

(3) Final Acceptance Inspection. The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Post Director of Public Works user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost.

k. DOCUMENTATION. The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

(1) Contractor/subcontractor and their area of responsibility.

- (2) Operating plant/equipment with hours worked, idle, or down for repair.
- (3) Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- (4) Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- (5) Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- (6) Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- (7) Offsite surveillance activities, including actions taken.
- (8) Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- (9) Instructions given/received and conflicts in plans and/or specifications.
- (10) Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. Unless otherwise directed by the Contracting Officer, all combined QC/QA reports shall be electronically transmitted to the Contracting Officer via e-mail and a follow up hard copy with wet signatures shall be delivered daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. Electronic copies shall be submitted in Word Version 9.05 or later. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no-work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

1. SAMPLE FORMS. Sample forms enclosed at the end of this section.

m. NOTIFICATION OF NONCOMPLIANCE. The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

11. SUBMITTAL PROCEDURES

a. SUBMITTAL IDENTIFICATION. Submittals required are identified by SD numbers as follows:

SD-01 Data(including Equipment and Materials Manufacturers Price List Data)

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

SD-19 Operation and Maintenance Manuals

b. SUBMITTAL CLASSIFICATION. Submittals are classified as follows:

(1) Government Approved. Government approval is required for submittals with a "G" designation for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer.

(2) Information Only. All submittals not having a "G" designation are for information only.

c. APPROVED SUBMITTALS. The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

d. DISAPPROVED SUBMITTALS. The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

e. WITHOLDING OF PAYMENT. Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

f. GENERAL. The Contractor shall make submittals as required by the specifications. All submittals shall be hard and electronic copies (see below for electronic deliverable requirements). The

Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Electronic copies shall be placed in the same order as they appear in the hard copy version. All drawings shall be submitted in .CAL format unless otherwise specified. Editable electronic copies shall be submitted as directed by the Contracting Officer. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals designated with a "G" requiring Government approval shall be scheduled and submitted prior to the acquisition of the material or equipment covered thereby. SOMM submittals shall be submitted 30 days prior to beginning of training. Submittals listed which require Contractor approvals shall be scheduled and submitted at least thirty (30) calendar days prior to scheduling the Quality Control Preparatory Phase as described in Section H, Paragraph 10, entitled Contractor Quality Control. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

g. SUBMITTAL REGISTER (ENG FORM 4288). At the end of this section is a DRAFT set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required, therefore the Contractor shall be responsible for a thorough inspection of all specification sections for additional submittal items. The Contractor will also be given the submittal register files, containing the computerized ENG Form 4288 and instructions on the use of the files. These submittal register files will be furnished on a separate diskette. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 30 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

h. SCHEDULING.

(1.) Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval of both G and submittals for information only. No delay damages or time extensions will be allowed for time lost in late submittals.

(2.) Submittals:

(a.) Submittals SD-1 Data, Qualifications; System Description; Materials and Equipment; Design Analysis and Calculations; and SD-04 Drawings, Detail Drawings; and Coordination Drawings as required in each of sections 16710; 16730; 16731; 16755; 16756; 16770; 16771; 16781; 16786; and 16788 shall be submitted as three part design submittals. The Contractor shall provide 10

hard copy sets and 2 compact disk copies of 35% and 65% design submittals for review by the Government. After receipt of the 35% and 65% submittals the Government shall have fifteen (15) calendar days for review and comment. A 35% review conference shall be scheduled on-site at Ft. Wainwright, Alaska during the first week after that period. The review will be for conformance with the requirements of the solicitation and the Contractors proposal. A 65% review conference will be conducted telephonically within one week after the review period. The review will be for conformance with the requirements of the solicitation and the Contractors proposal.

(b.) At the review conferences, or just prior to the conferences, the Government will furnish the Contractor comments from the various design sections and from other concerned agencies involved in the review process. The Contractor shall bring key design personnel for each section to the review conferences. During the conferences, the Contractor will either accept the comments, with or without provision, or have comments withdrawn if generally agreed upon.

(c.) Review Conferences: Review comments provided to the Contractor will not necessarily show coordination requirements with other parts of the submittal. The Contractor shall incorporate and coordinate the review comments into each part of the next submittal.

(d.) The following defines the minimum requirements for the 35% and 65% submittals:

The 35% design submittal shall include for each system:

- 1) Block diagram of system proposed including all functional components.
- 2) Narrative on how the system operates to help the hospital staff (what value this system brings to the hospital).
- 3) Narrative on system theory of operation, and how the system will interface with other systems if required.
- 4) Selection of all major components including Manufacturer, Make, Model, quantities.
- 5) Cut sheets or manufacturers manuals of major components if available.
- 6) Preliminary space, power, and cooling requirements.

The 65% design submittal shall include for each system. (The design should be essentially complete at this point, and the documentation of the design should be formalized.):

- 1) All plans and drawings necessary to place equipment in its final configuration.
- 2) Schematic Diagrams
- 3) Wiring / Terminal Block lists
- 4) Complete Material lists
- 5) Design Analysis/Calculations
- 6) Preliminary documentation (Q/A, Q/C, final adjustments, FCO)

(e.) Conference Records: The Contractor shall, within seven (7) working days after the conferences prepare a written record of the meetings and furnish two hard copies to the project manager. The written report shall include the project name, contract discussions, recommendations, and conclusions. The reports shall also be provided electronically in MS Word 2000 format.

The contractors final design submittals shall be submitted as required in h (1) above with adequate time (a minimum of twenty (20) calendar days exclusive of mailing time) allowed for review and approval.

i. TRANSMITTAL FORM (ENG FORM 4025). The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

j. Submittals shall be made as follows:

(1) Procedures

(a) Government approved and Information only submittals shall be listed on separate ENG Form 4025's.

(b) Samples for testing shall be delivered in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL. All other submittals shall be delivered to the Contracting Officer.

(2) Deviations. For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

k. CONTROL OF SUBMITTALS. The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

l. GOVERNMENT APPROVED SUBMITTALS. Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Five (5) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Contractor.

m. INFORMATION ONLY SUBMITTALS. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe. Submittals must be submitted thirty (30) days prior to scheduled associated preparatory meetings.

n. STAMPS. Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)
_____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheet(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

o. ATTACHMENTS. ENG Form 4288 Submittal Registers and ENG Form 4025.

12. OPERATION & MAINTENANCE TRAINING

The following table outlines the requirements for training. Contractor shall provide four (4) copies, in CD-ROM/DVD format, of all video recorded training sessions. In addition, the Contractor shall provide fifteen (15) copies of all training media.

TRAINING COURSES AND SESSIONS						
SYSTEM	TRAINING COURSES	TRAINING SESSIONS (Note 1)				NOTES
		SHIFT S	SESSIONS PER SHIFT	LOCATION (Note 2)	HOURS PER SESSION	
PDS	Technician	1	1	Classroom & Field	4	3
NCTV	User/Operator	3	5	Classroom & Field	2	4
	Refresher - User/Operator	3	5	Field	1	4
	Technician	1	1	Classroom & Field	12	
				Manufacturer Facility	Ref Notes	5
	Refresher - Technician	1	1	Classroom & Field	4	
NCAV	User/Operator	3	4	Classroom & Field	4	4
	Refresher - User/Operator	3	4	Field	2	4

TRAINING COURSES AND SESSIONS						
SYSTEM	TRAINING COURSES	TRAINING SESSIONS (Note 1)				NOTES
		SHIFT S	SESSIONS PER SHIFT	LOCATION (Note 2)	HOURS PER SESSION	
	Technician	1	1	Classroom & Field	16	
				Manufacturer Facility	Ref Notes	5
	Refresher - Technician	1	1	Classroom & Field	8	
RADIO PAGE	Operator	1	1	Operator Station	6	
	Refresher - Operator	1	1	Operator Station	2	
	User	3	3	Classroom	1	
	Technician	1	1	Classroom & Field	8	
				Manufacturer Facility	Ref Notes	5, 6
	Refresher - Technician	1	1	Classroom & Field	3	
RF TRANSPONDER	Technician	1	1	Classroom & Field	6	
	Refresher - Technician	1	1	Classroom & Field	2	
PUBLIC ADDRESS	User	3	8	Field	0.5	
	Refresher - User	3	8	Field	0.5	
	Technician	1	1	Classroom & Field	8	
	Refresher - Technician	1	1	Classroom & Field	4	
SOUND REINFORCEMENT	User/Operator	1	1	Field	3	
	Refresher - User	1	1	Field	1	
	Technician	1	1	Field	3	
	Refresher - Technician	1	1	Field	2	

TRAINING COURSES AND SESSIONS						
SYSTEM	TRAINING COURSES	TRAINING SESSIONS (Note 1)				NOTES
		SHIFT S	SESSIONS PER SHIFT	LOCATION (Note 2)	HOURS PER SESSION	
TV	User	3	3	Classroom & Field	2	
	Operator	1	1	Field	8	
	Refresher - Operator	1	1	Field	4	
	Technician	1	1	Field	8	
				Manufacturer Facility	Ref Notes	5
	Refresher - Technician	1	1	Field	4	
EMS RECORDER	Operator	3	1	Recorder	2	
	Refresher - Operator	3	1	Recorder	1	
	Technician	1	1	Field	2	
	Refresher - Technician	1	1	Field	1	
FACILITY SECURITY SYSTEM	Operator	3	2	Classroom & Operator Workstations	8	
		3	2	Inpatient and L&D Nursing Units	4	7
		1	1	Management Workstation	8	
	Refresher - Operator	1	3	Workstations	8	
	User	3	8	Classroom	1	8
	Technician	1	1	Classroom & Field	16	
				Manufacturer Facility	Ref Notes	5
	Refresher - Technician	1	1	Classroom & Field	8	

GENERAL NOTES:

1. Training session data are minimum requirements. System contractor shall add training sessions and time as required by the system application design.

REFERENCED NOTES:

1. The number of trainees per session shall be as coordinated with the Contracting Officer during development of the Training Plan.
2. Classroom training sessions shall be held in on-site classrooms as coordinated with the Contracting Officer.

Field training sessions shall be held in facility locations where subject components of the system/subsystem are installed.

3. Includes installers of GFGI equipment that interconnects with the PDS.
4. One training session for each nurse call subsystem per shift.
5. Factory training and certification for maintenance staff. The hours of instruction shall be as required by the Manufacturer for complete and comprehensive training for certification as a maintenance technician.
6. Factory training for CPU/Encoder only.
7. One training session per nursing unit per shift.
8. Access card users and duress alarm station users.

13. PROJECT SCHEDULE

a. GENERAL REQUIREMENTS. The scheduling of performance of work shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all payments.

b. NOT USED.

c. PROJECT SCHEDULE. The computer software system utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule. Manual methods used to produce any required information shall require approval by the Contracting Officer.

(1) Use of the Critical Path Method. The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project Schedule in the Precedence Diagram Method (PDM).

(2) Level of Detail Required. The Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, as specified by the Contracting

Officer, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule:

- (a) Activity Durations. Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods (usually less than 2 percent of all non-procurement activities' Original Durations are greater than 20 days).
- (b) Procurement Activities. Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery.
- (c) Government Activities. Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-in, Government Furnished Equipment (GFE) and Notice to Proceed (NTP) for phasing requirements.
- (d) Responsibility. All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, Contractor work force, or government agency performing a given task. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.
- (e) Work Areas. All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the Work Area Code.
- (f) Modification or Claim Number. Any activity that is added or changed by contract modification or used to justify claimed time shall be identified by a mod or claim code that changed the activity.
- (g) Proposal Item. All activities shall be identified in the project schedule by the proposal Item to which the activity belongs.
- (h) Phase of Work. All activities shall be identified in the project schedule by the phases of work in which the activity occurs.
- (i) Category of Work. All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.
- (j) Feature of Work. All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work

refers, but is not limited to, a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

(3) Scheduled Project Completion. The schedule interval shall extend from award to the contract completion date.

(a) Project Start Date. The schedule shall start no earlier than the date of award. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have an "ES" constraint date equal to the date of award and a zero day duration.

(b) Constraint of Last Activity. Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration.

(c) Early Project Completion. In the event the project schedule shows completion of the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted in the narrative report at every project schedule update period to assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

(4) Interim Completion Dates. Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

(a) Start Phase. The Contractor shall include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have an "ES" constraint date equal to the date of award and a zero day duration.

(b) End Phase. The Contractor shall include as the last activity in a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration.

(c) Phase X. The Contractor shall include a hammock type activity for each project phase called "Phase X" where "X" refers to the phase of work. The "Phase X" activity shall be logically tied to the earliest and latest activities in the phase.

(5) Default Progress Data Disallowed. Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports.

(6) Out-of-Sequence Progress. Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case approval of the Contracting Officer. The Contractor shall propose logic corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule.

(7) Negative Lags. Lag durations contained in the project schedule shall not have a negative value.

d. **PROJECT SCHEDULE SUBMISSIONS.** The Contractor shall provide the submissions as described below. The data disk, reports, and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS.

(1) Preliminary Project Schedule Submission. The Preliminary Project Schedule, defining the Contractor's planned operations for the first 60 calendar days shall be submitted for approval within 20 calendar days after contract award.

(2) Initial Project Schedule Submission. The Initial Project Schedule shall be submitted for approval within 40 calendar days after award. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail.

(3) Periodic Schedule Updates. Based on the result of progress meetings, specified in "Periodic Progress Meetings," the Contractor shall submit periodic schedule updates. These submissions shall enable the Contracting Officer to assess Contractor's progress.

(4) Standard Activity Coding Dictionary. The Contractor shall use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11, Appendix A. This exact structure is mandatory, even if some fields are not used.

e. **SUBMISSION REQUIREMENTS.** The following items shall be submitted by the Contractor for the preliminary submission, initial submission, and every periodic project schedule update throughout the life of the project:

(1) Data Disks. Two data disks containing the project schedule shall be provided.

(a) NOT USED.

(b) Disk Label. A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Preliminary, Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number or person responsible for the schedule.

(c) File Name. Each file submitted shall have a name related to either the schedule data date, project name, or contract number.

(2) Narrative Report. A Narrative Report shall be provided with the preliminary, initial, and each update of the project schedule.

(3) Approved Changes Verification. Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission.

(4) Schedule Reports. The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.

(a) Activity Report. A list of all activities sorted according to activity number.

(b) Logic Report. A list of Preceding and Succeeding activities for every activity in ascending order by activity number. Preceding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping.

(c) Total Float Report. A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall not be shown on this report.

(d) NOT USED.

(5) Network Diagram. The network diagram shall be required on the initial schedule submission and on monthly schedule update submissions. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

(a) Continuous Flow. Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity number, description, duration, and estimated earned value shall be shown on the diagram.

(b) Project Milestone Dates. Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

(c) Critical Path. The critical path shall be clearly shown.

(d) Banding. Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

(e) S-Curves. Earnings curves showing projected early and late earnings and earnings to date.

f. NOT USED.

g. REQUESTS FOR TIME EXTENSIONS. In the event the Contractor requests an extension of the contract completion date, or any interim milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is

entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

(1) Justification of Delay. The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon the project schedule updates in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, will not be a cause for a time extension to the contract completion date.

(2) Submission Requirements. The Contractor shall submit a justification for each request for a change in the contract completion date of under 2 weeks based upon the most recent schedule update at the time of award or constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

- A list of affected activities, with their associated project schedule activity number.
- A brief explanation of the causes of the change.
- An analysis of the overall impact of the changes proposed.
- A sub-network of the affected area.
- Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

(3) Additional Submission Requirements. For any requested time extension of over 2 weeks, the Contracting Officer may request an interim update with revised activities for a specific change request.

h. DIRECTED CHANGES. If the NTP is issued for changes prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within 2 weeks of the NTP being issued. The proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule.

i. OWNERSHIP OF FLOAT. Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

END OF SECTION H

Section L - Instructions, Conditions and Notices to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.204-6	Data Universal Numbering System (DUNS) Number	OCT 2003
52.211-7	Alternatives to Government-Unique Standards	NOV 1999
52.215-1 Alt II	Instructions to Offerors--Competitive Acquisition (Jan 2004)	OCT 1997
	- Alternate II	

CLAUSES INCORPORATED BY FULL TEXT

52.211-3 AVAILABILITY OF SPECIFICATIONS NOT LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS (JUN 1988)

The specifications cited in this solicitation may be obtained from:

<http://www.hnd.usace.army.mil/techinfo/index.asp>

The request should identify the solicitation number and the specification requested by date, title, and number, as cited in the solicitation.

(End of clause)

Section L

1. IMPORTANT NOTE

The offeror's attention is invited to Federal Acquisition Regulation (FAR) Subpart 9.5. Offerors are advised that employees of the firm identified below may serve as technical advisors during the source selection process. These individuals will be authorized access to only those portions of the proposal data that are necessary to enable them to perform their respective duties. Such firm is expressly prohibited from competing on the subject acquisition and from scoring or ranking of proposals or recommending the selection of a source.

Broutman & Associates
Attn: Chuck Broutman
5610 Wisconsin Ave., Unit 406
Chevy Chase, MD 20815
(wk: 301-652-8158)

Science Applications International Corporation
Attn: Joan McInerney, IM/IT Mgr - HFPO
10260 Campus Point Drive
San Diego, CA 92121
(wk: 907-353-5829)

T.A. Consulting, Inc.
Attn: Dan Gerdes, Eng. - HFPO
900 Commonwealth Place
Suite 201
Virginia Beach, VA 13464
(wk: 907-353-5831)

VW International
Attn: George Lickman
Comm Consultant - HFPA
8800-C, Peartree Village Court
Alexandria, VA 22309
(Corporate 703-360-5464)
(wk: 251-639-1882)

In accomplishing their duties related to the source selection process, the aforementioned firm may require access to proprietary information contained in the offerors' proposals. Therefore, pursuant to FAR 9.505-4, this firm must execute an agreement with each offeror that states that they will (1) protect the offerors' information from unauthorized use or disclosure for as long as it remains proprietary and (2) refrain from using the information for any purpose other than that for which it was furnished. To expedite the evaluation process, each offeror must contact the above company to effect execution of such an agreement prior to submission of proposals. Each offeror shall submit a copy of the agreement with their proposal.

2. In accordance with 52.237-1, Site Visit, Offerors or quoters are urged and expected to inspect the site where services are to be performed (please see the entire provision included with this solicitation).

a) An organized site visit has been scheduled for **September 16, 2004 at 10:00 a.m. Alaska Daylight Time (ADT)**. Attendance is limited to two representatives from each offeror.

(b) Those offerors interested in attending the site visit shall contact Ms. Sharon A. Skelton, by telephone at (907) 753-2525 or by email at sharon.a.skelton@usace.army.mil no later than September 8, 2004, 2:00 p.m. (ADT).

(c) Participants will meet at the Bassett Resident Office located in Bldg 4077 on Fort Wainwright in Alaska. Fort Wainwright is co-located with Fairbanks, Alaska. Participants must bring their own personal protective safety equipment, including hardhat, safety shoes, safety glasses, and orange safety vest. Participants will be denied access to the project site if this equipment is not worn.

(d) To gain access to Fort Wainwright visitors will be required to obtain a day pass at the Fort Wainwright main gate located on Gaffney Drive. Visitors are required to provide current vehicle registration, proof of insurance and photo identification.

3. Offerors are cautioned to thoroughly review all documentation provided prior to preparing their proposals. The terms "Contractor" and "Communications Contractor" are used synonymously throughout the solicitation and refer to the prime contractor responsible for all systems under this contract.

(b) PROPOSAL PREPARATION INSTRUCTIONS.

(1) The U.S. Army Engineer District, Alaska, intends to solicit this requirement using the source selection procedures in accordance with the provisions set forth in this Request for Proposal (RFP). A firm fixed price contract will be awarded to the offeror who submits a proposal determined to be the best value and is most advantageous to the Government, with price and other factors considered. All contractors will receive written notice if they were or were not selected for contract award.

(2) These instructions are designed to ensure information required for evaluation of proposals is submitted. Offerors are cautioned to follow the detailed instructions provided below as the government reserves the right to make award based upon initial offers received without discussions. Limited exchanges with offerors may be conducted for clarifications. A competitive range may be established for conducting discussions.

(3) Proposals submitted shall be complete, comprehensive and clearly presented. Elaborate artwork, expensive paper/binding, and expensive visual aids are neither necessary nor desired. The technical proposal, shall make no reference to price. All pages of each part shall be numbered and identified with the Request for Proposal (RFP) number. The offeror shall provide any narrative or supporting material necessary for the government to fully understand the proposal.

(4) Submit your proposal in three volumes. Volume I contains your organization's management proposal to perform this work. Volume II contains your technical proposal, that

is, the offeror's understanding of the requirement. Volume III contains pricing and subcontracting plan requirements. These parts shall be physically separate and detachable parts.

(5) Written portions shall be typewritten using not more than 6 vertical lines per inch in 8 ½" x 11" format with three holes punched, inserted in three ring binders. Schedules may be presented on 11" x 17" sheets folded to 8 ½" x 11." The offeror shall label and tab their proposal consistent with the solicitation format shown below in paragraph 8, Specific Proposal Requirements. Each page of the proposal shall be consecutively numbered, beginning with the first page and ending with the last.

(6) Page Limitations:

- (i) Volume I is not expected to exceed 50 (fifty) single-sided pages
- (ii) Volume II may contain as many pages as required. Use of original product information is highly encouraged for clarity.
- (iii) Volume III has no page limit. Volume IV is a subpart of Volume III and has no page limitations.

(7) Submit your proposal packages in original and three copies to the U.S. Army Corps of Engineers, Alaska District at the address shown in Block 9 of the Standard Form 33, Solicitation/Contract/Order for Commercial Items. The Government must receive your proposal no later than the time and date set forth in this solicitation.

(8) Specific Proposal Requirements.

(i) Volume I, Management Proposal. This volume is an opportunity for you to provide information on your team's past experience and performance, your capacity to perform work for this project and your management approach. Present the material sequentially under the following Tabs A through D to facilitate evaluation that demonstrates appropriate experience of the system contractor responsible for providing and installing each system as defined in Schedule B of this solicitation.

(a) TAB A, Contractor and Subcontractor Experience.

- (i) Provide narrative that demonstrates contractor experience in coordinating and scheduling work with other contractors while performing concurrent work within the same physical area.

(ii) Provide narrative that demonstrates system contractor experience in coordinating and scheduling work with other contractors while performing concurrent work within the same physical area.

(iii) Provide a minimum of three (3) examples of projects with recent and relevant experience that demonstrates the contractor's and systems contractors' experience with projects of similar scope. Examples shall show that projects were completed within the last five years. Provide an explanation of how these projects are similar in scope to the work required in this RFP.

(iv) Provide information that demonstrates the contractor's and system contractor's qualifications are in compliance with each system specification section.

(b) TAB B, Organization and Management. Fully describe your proposed organization, in terms of key personnel who will perform the work as specified. Provide an organizational chart that includes a minimum all the required key personnel, as stated in TAB C.

(c) TAB C, Key Personnel

(i) Furnish resumes for all key personnel, including those listed below that will be assuming the noted roles and responsibilities. Each resume shall include the individuals' education and experience (to include at least 3 projects of similar systems, scope, cost and complexity). Key personnel are as listed below:

(ii) Key personnel shall include:

- (1) Contractor Quality Control System Manager
- (2) Contractor Project Manager
- (3) Subcontractor Project Manager for each telecommunication system
- (4) System Application Designer for each telecommunication system
- (5) Contractor and subcontractors CADD Capabilities
- (6) Contractor and subcontractors installation supervisors
- (7) Commissioning and Acceptance Testing Personnel for each telecommunications system
- (8) Training Personnel for each telecommunications system

(d) TAB D, Management Plan. Provide a narrative that describes management approach to project management, quality control and safety. As a minimum address the following questions:

(i) How you will ensure that subcontractor work is in compliance with contract requirements?

(ii) Will subcontractors have their own quality control staff that supplements the prime contractor's staff?

(iii) How you will manage coordination with other contractors (your subcontractors and other contractors concurrently performing work at the site) and changes, for example sequencing of work with availability of work areas?

(ii) Volume II, Technical Proposal – Understanding the Requirements. Provide the information itemized below for each system in the following format:

- Volume II-A, Premises Distribution System
- Volume II-B, EMS Recorder
- Volume II-C, Radio Page System
- Volume II-D, Public Address System
- Volume II-E, Sound Reinforcement System
- Volume II-F, Nurse Call Tone Visual
- Volume II-G, Nurse call Audio Visual
- Volume II-H, Television System (Headend, Cable Plant, and Control Equipment)
- Volume II-J, Television System (TV Sets, Video Equipment, Software)
- Volume II-K, Facility Security Systems (FSS) Overview and Integrator Network
- Volume II-L, FSS Access Control & Alarm Subsystem
- Volume II-M, FSS Infant Protection Alarm System
- Volume II-N, FSS CCTV Surveillance Subsystem
- Volume II-O, Intrusion Detection Equipment
- Volume II-P, RF Transponder System

(a) TAB 1, System Descriptions (Proposed Equipment and Specifications). Furnish a complete description of the proposed system to be provided to satisfy the requirements. This shall include a comprehensive description of the operating characteristics and individual data sheets from the manufacturer for each component product item (equipment, cable, software programs, etc.) indicating descriptive functional and technical data. Diagrams and drawings that clearly indicate the architecture and configuration for this project shall be included. Other diagrams and drawings may be included as needed to clarify the proposal. The manufacturer(s) of the proposed system and component products shall be identified.

(b) TAB 2, Training of Government Personnel. This shall be demonstrated by a written description of the types of training required for the proposed system and a sample training plan of the type specified.

(c) TAB 3, Warranty Support. Furnish a description of the warranty period support to be provided and how this shall be executed for maintenance, repair and training.

(d) TAB 4, Deviation Requests. List and define any and all proposed deviations to the requirements, including any proposed substitutions. If deviations are not presented in this tab the Government requires full compliance with all specifications and indicated requirements. State why deviations should be considered and indicate any effect on any and all specified and indicated requirements. Each deviation request item shall be referenced to the affected specified and/or indicated requirement, including the specification page and paragraph number and drawings sheet/detail number. Include any deviations to the specifications that are applicable to the system.

(e) TAB 5, System Alternates. Alternates to the requirements specified may be proposed provided that these alternates improve or enhance the required features and capabilities specified. Alternates that reduce or degrade the features or capabilities shall not be acceptable. List, explain, and justify any proposed alternates. Indicate any effect on specified requirements by reference to the affected item page and paragraph number of the specification and/or drawings. Indicate any other work the Government would have to provide to accommodate the proposed alternates.

(iii) Volume III, Price Proposal. The price proposal will not be rated; however it will be evaluated to determine reasonableness, affordability, and its relativity to the technical submission. The Government will perform a price analysis by comparing the proposed prices to that of other offerors and to the Government Estimate. Volume III Price Proposal should include:

(a) TAB A, Representations and Certifications

(b) TAB B, Pre-Award Survey

(Past Performance Surveys (PPS) may be submitted 10 days in advance of the solicitation. See Section J for surveys) PPS shall be submitted to the place specified Block 8, Page 1 of SF33.

(c) TAB C, Price Information

(d) TAB D, Large Businesses are required to submit a Small Business Subcontracting Plan - IAW 52.219-9 Alt II.

(e) TAB E, Points of Contact for your firm to include firm name, address, primary point of contact, phone number, fax number, and email of point of contact, if available

(iv) VOLUME IV, Subcontracting Plan (cross referenced and provided in Volume III). The offerors subcontracting plan will be evaluated in accordance with AFARS Appendix DD, Subcontracting Plan Evaluation Guide. This guide can be viewed at the following web site: <http://farsite.hill.af.mil/vfafara.htm>

- 9.) “Any prospective offeror desiring an explanation or interpretation of the solicitation, including drawings and specifications, must request it in writing soon enough to allow a reply to reach all prospective offerors before the submission of their proposal. This process usually takes a minimum of 14 calendar days and you are advised to schedule review of the solicitation to allow adequate time for submission of questions. Oral explanations or instructions given before the award of a contract will not be binding. Any information given to a prospective offeror concerning a solicitation will be furnished to all other prospective offerors as an amendment to the solicitation, if the information is necessary in submitting proposals or the lack of it would be prejudicial to other prospective offerors. Each question or inquiry shall be written legibly, reference the solicitation number and identify the section of the solicitation, by paragraph, drawing number or other reference pertinent to the question or inquiry.”

END OF SECTION L

PART IV - REPRESENTATIONS AND INSTRUCTIONS**SECTION M****EVALUATION FACTORS FOR AWARD**

(IAW FAR 13.106-2(b), 14.201-5(c), and 15.204-5(c))

1. ARITHMETIC DISCREPANCIES (EFARS 52.214-5000):

- a) For the purpose of initial evaluation of proposals, the Following will be utilized in resolving arithmetic discrepancies Found on the face of the proposal schedule as submitted by offerors:
 - (1) Obviously misplaced decimal points will be corrected;
 - (2) In case of discrepancy between unit price and Extended price, the unit price will govern;
 - (3) Apparent errors in extension of unit price will be corrected;
 - (4) Apparent errors in addition of lump sum and extended Price will be corrected.
- b) For the purpose of proposal evaluation, the government will proceed on assumption that the offeror intends his proposal to be evaluated on the basis of the unit prices, extensions, and totals arrived at by Resolution of arithmetic discrepancies as provided above and the Proposals will be so reflected on the abstract.

2. AWARD EVALUATIONS:

The Government will award the contract to the offeror of the proposal that represents the best overall value to the Government. The evaluation will assess the offeror's overall cohesive approach in assimilating these various elements for each factor into a comprehensive, consistent, and concise proposal that meets or exceeds the Government's requirements. The Government will evaluate the proposals of each offeror: first, objectively on the compliance of its proposal and then, qualitatively on the following evaluation factors:

- a. Non-Price Factors
 - Experience of the Contractor and Subcontractors
 - Organization and Management
 - Qualifications of Key Personnel
 - Management Plan
 - Past Performance
 - Technical Proposal
 - Small Business Participation

- b. Price

3. EVALUATION FACTORS:**a. OFFER COMPLIANCE:**

The Government will evaluate the compliance of an offer on a pass or fail basis. No qualitative or scoring evaluation will be made, and offer compliance will not be considered in the price/technical tradeoff. The Government will consider an offer to be compliant if the offeror manifests its assent to the terms and conditions in RFP Sections A through K, without exception. The Government will consider an offer to be uncompliant if the offeror takes exception to any of the terms and conditions in RFP Sections A through K. The Government intends to award the contract without discussions, as provided in FAR 15.610(a) and FAR 52.215-16(ALT II). An offeror can eliminate a deficiency in its proposal only through discussions. Therefore, if the Government decides to award the contract without discussion, then any offeror that takes exception to any term and condition in RFP sections A through K may not receive the award. However, if the Government decides to conduct discussions with offerors in the competitive range, then any offeror that is in the competitive range

will be given the opportunity to eliminate any deficiencies in its offer. Also, the Government reserves the right to change (amend) the RFP at any time prior to the award of the contract, as provided in FAR 15.606.

b. EXPERIENCE: (VOL I, TAB A)

1) The Government defines experience as learning by doing. The Government will evaluate the depth and breadth of an offeror's experience on the basis of the number of times it has performed projects that were similar in nature, scope, and complexity to the work that will be required under the contract for which offers are solicited by this RFP.

2) The information provided for the prime and subcontractors will be evaluated based on knowledge of locality; demonstrated capabilities; expertise related to in cold regions and remote locations; project type and complexity (describe the work); performance period; and contract value. Experience in Alaska will be rated higher than experience in other cold regions, which will be rated higher than experience in all other areas.

c. QUALIFICATIONS of KEY PERSONNEL: (VOL I, TAB B – Organization & Management, VOL I, TAB C – Key Personnel)

1) The Government will evaluate the offeror's qualification based on the resumes submitted to ensure personnel meet the minimum requirements of the solicitation (Section L).

2) The Government will assess experience of personnel assigned to this contract. The evaluation will be based on the professional capabilities, certification, relevant experience, and education levels of the personnel to be involved in this contract.

3) Emphasis will be placed on how comprehensive the proposed organization is and the commitment of qualified personnel to each of the key positions identified. The contractor organizational chart shall be evaluated for functionality of the organization, effectiveness of management structure, and whether roles, responsibilities, and authorities are clearly defined. The Government will evaluate the roles, responsibilities, and related experience of the key personnel in the organization.

d. MANAGEMENT PLAN: (VOL I, TAB D)

1) The Management Plan shall be evaluated for a realism, feasibility, and applicability to the project and the coordination with Corps of Engineers, and the other contractors on site. The QC Plan and Safety Plan shall be evaluated for relevance, conformance to requirements, and the understanding of the project requirements.

2) The tasks to be subcontracted shall be clearly identified to include the subcontractor's name and key point of contact.

e. TECHNICAL PROPOSAL: (VOL II)

1). Offerors will be evaluated on the extent to which the description submitted for each system provides sufficient detail to demonstrate that the offeror's system meets or exceeds the specifications and drawings and will provide fully functional systems. Expandability of systems i.e., how proposed system might be extended to meet future needs, performance history and warranty shall also be evaluated.

2). The proposal shall be evaluated on compatibility of any proposed deviations and alternates with technical standards and solicitation requirements; the offeror's understanding of solicitation requirements; and the risk for unacceptable contract performance.

f. PAST PERFORMANCE: (VOL III, TAB B)

The Government will evaluate each offeror's past performance to determine how well it satisfied its

customers. The Government will contact some of each offeror's customers, and others to determine whether the offeror: conforms to the terms and conditions of its contracts; obeys the law; is honest, reasonable, and cooperative; maintains good labor relations; manages its subcontractors effectively; performs work safely; and is committed to customer satisfaction. The Government may contact sources outside those listed in the proposal. If the offeror is a large business, the offeror's past performance in complying with subcontracting plan goals for small, small disadvantaged and women-owned small businesses shall be evaluated.

g.. SMALL BUSINESS SUBCONTRACTING PLAN (VOL IV)

The Government will evaluate each offeror's subcontracting plan to determine the extent of subcontracting and the extent of participation of small, small disadvantaged, HUBZone, veteran-owned and women-owned small businesses. Preference will be given to those offeror's that demonstrate both the intent and commitment to the utilization of qualified small, small disadvantaged, HUBZone, veteran-owned and women-owned small businesses. The Government will evaluate in accordance with procedures described in AFARS Appendix DD, Subcontracting Plan Evaluation Guide, attached at the end of this Section. If the offeror's plan does not receive a score of greater than 70 points, as prescribed by AFARS 10.705-4(d)(iii), and a plan cannot be negotiated that meets this criteria, the offer may be rejected.

h. PRICE (VOL III, TAB C):

The Government will perform a price analysis and evaluate price comparing the proposed price to the Independent Government Estimate and prices of other offerors. Price shall be evaluated for reasonableness and affordability. The total cost of doing business will be used in evaluating the price proposal. This approach includes multipliers for various overheads and administrative costs.

i. RELATIVE IMPORTANCE OF THE EVALUATION FACTORS:

Since an offeror's offer must be compliant in order for it to be eligible for award, offer compliance is a mandatory solicitation requirement. In general, the Government considers the non-price factors of Experience of the contractor and subcontractor, organization and management, qualifications of key personnel, management plan, technical proposal, past performance, and small business participation, to be more important than price.

j. THE DETERMINATION OF BEST OVERALL VALUE:

1) In order to determine which offer represents the best overall value, the Government will compare offerors to each other in a series of paired comparisons, trading off offeror's values based on their overall performances on the non-price factors excluding offer acceptability. In comparing two offerors, if one member of a pair has both the better overall non-price value and the lower price, then the Government will consider that offeror to be the better value.

2) If one member of a pair has the better overall non-price value, but a higher price than the other offeror, then the Government's source selection authority will determine if the difference in non-price value is worth the difference in price. If the source selection authority decides that the better non-price value is worth the higher price, then the Government will consider the offeror with the better non-price value and the higher price to be the better overall value.

3) If the source selection authority decides that the better value is not worth the higher price, then the Government will consider the offeror with the lower non-price value and the lower price to be the better value. The source selection authority will continue to make paired comparisons until he or she has identified the offeror that represents the better overall value.

4)

END OF SECTION M

TECHNICAL SPECIFICATION SECTION – PARAGRAPH CHANGE PAGE

Change sub-paragraph 1.8.b. of paragraph 1.8 WARRANTY, of Technical Specification Sections 16710, 16730, 16731, 16755, 16756, 16770, 16771, 16781, 16786, and 16788:

FROM:

1.8 WARRANTY

b. Warranty the operational and physical integrity of the provided system, including a warranty against all defects in design, equipment, materials, software, workmanship, and improper installation and adjustments, for a period of at least one year from the date that the operating system is accepted by the Government after satisfactory completion of final inspection and acceptance tests. This warranty shall not cover any malfunctions or damage caused by misuse, abuse or neglect. If the System Contractor or Manufacturer warranty is for a period longer than one year, the longest warranty period shall govern. The system contractor shall furnish a warranty document with the Data submittal.

TO:

1.8 WARRANTY

b. Warranty the operational and physical integrity of the provided system, including a warranty against all defects in design, equipment, materials, software, workmanship, and improper installation and adjustments for a period standard to the commercial industry for a project of this type and size. The warranty shall extend from the date that the operating system is accepted by the Government after satisfactory completion of final inspection and acceptance tests. This warranty shall not cover any malfunctions or damage caused by misuse, abuse or neglect. The System Contractor shall furnish a warranty document with the data submittal.

TECHNICAL SPECIFICATION SECTION – PARAGRAPH CHANGE PAGE

Change sub-paragraph 3.2.2.a. of paragraph 3.2.2 Rough-In, of Technical Specification Sections 16710, 16730, 16731, 16755, 16756, 16770, 16771, 16781, and 16788:

FROM:

3.2.2 Rough-In

- a. Existing rough-in, which has been generally designed to accommodate the installation of typical systems available in the marketplace, has been provided by the facility construction project. This includes cable trays, conduits, boxes, and enclosures as indicated in the Telecommunications Systems Drawings, to accommodate the installation of the specified system.

TO:

3.2.2 Rough-In

- a. Existing rough-in, which has been generically designed to accommodate the installation of typical systems available in the marketplace, has been provided by the facility construction project. This includes cable trays, conduits, boxes, and enclosures as indicated in the Telecommunications Systems Drawings, to accommodate the installation of specified systems. If the provided system requires any infrastructure or rough-in, in addition to or different from what was provided as part of the facility construction project contract, then the System Contractor shall provide all such additional infrastructure and rough-in.**